AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for determining an estimated operating parameter for a system comprising:

a. determining a first estimated operating parameter using an algorithm having an input from at least one sensor, wherein said algorithm includes a trim factor;

b. determining a ~~first~~ current trim factor based on a comparison of the first estimated operating parameter and the output of ~~the at least one~~ another sensor measuring a current actual value of the operating parameter, when ~~a parameter of the at least one~~ the another sensor is in a first mode, and

c. during a subsequent determination of the estimated operating parameter, applying ~~the first~~a previously determined current trim factor to subsequently determine the estimated operating condition if the condition of the at ~~least one~~another sensor is in a second mode.

2. (Original) A method as in claim 1 wherein the estimated operating condition is a emission level at an exhaust of a gas turbine and the sensor is single emission sensor.

3. (Original) A method as in claim 2 wherein the algorithm is a emissions transfer function having as inputs a compressor discharge and a combustion firing temperature.

4. (Previously Presented) A method as in claim 1 wherein the second mode of the sensor is an unhealthy sensor mode and the first sensor mode is a healthy sensor mode.

5. (Currently Amended) A method as in claim 1 wherein the ~~first~~ current trim factor is a ratio of a prior estimated operating parameter and the ~~output of the at least one~~another sensor, when the sensor condition is in the first mode.

6. (Currently Amended) A method as in claim 1 wherein the previously determined current trim factor is a ratio of an estimated operating parameter determined from a preceding determination of the estimated operating parameter and of ~~an~~ a prior output of the another sensor when the sensor condition ~~is~~ was in the first mode.

7. (Currently Amended) A method as in claim 1 wherein the ~~at least one~~ another sensor directly measures an actual operating parameter corresponding to the estimated operating parameter.

8. (Currently Amended) A method as in claim 1 wherein the estimated operating parameter is an estimated emission level, and the ~~at least one~~ another sensor includes an emissions sensor sensing an actual emission level.

9. (Currently Amended) A method as in claim 1 wherein the ~~at least one~~ another sensor includes a nitrogen oxide (NOx) emission sensor.

10. (Original) A method for determining an estimated operating emission level for an exhaust of a gas turbine comprising:

a. periodically determining an estimated emission level from an output of emissions transfer algorithm, wherein said algorithm includes a trim factor;

b. determining a current trim factor based on a ratio of a current output of a healthy emission sensor monitoring the exhaust and of the estimated emission level from a prior determination, and

c. applying a prior trim factor previously applied to determine the estimated operating condition if the emission sensor is unhealthy.

11. (Original) A method as in claim 10 wherein said emissions transfer algorithm receives inputs from at least one of a group of input parameters consisting of: compressor discharge temperature, specific humidity of ambient air, fuel split ratio and combustion firing temperature.

12. (Original) A method as in claim 10 wherein said emission sensor is a single sensor.

13. (Original) A method as in claim 10 wherein said emission sensor is deemed unhealthy during calibration of the sensor.

14. (Original) A method as in claim 10 wherein said emission sensor is deemed unhealthy while said sensor is operating outside of a predetermined range.

15. (Original) A method as in claim 10 wherein said emission sensor is deemed unhealthy during a period of steady state gas turbine operation and after said trim factor has been determined for said steady state operation.

16. (Original) A method as in claim 10 further comprising suspending said emission sensor when said sensor is deemed unhealthy.

17. (Original) A method as in claim 10 wherein the sensor is a nitrogen oxide (NOx) emission sensor.

18. to 24. (Cancelled)